

## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE



|                 |                             |   |                                       |
|-----------------|-----------------------------|---|---------------------------------------|
| Applicant(s):   | Paul Schimmel <i>et al.</i> | ) |                                       |
|                 |                             | ) |                                       |
| Application No. | 09/813,718                  | ) |                                       |
|                 |                             | ) |                                       |
| Filed:          | March 21, 2001              | ) | Group Art Unit: 1642                  |
|                 |                             | ) |                                       |
| For:            | HUMAN AMINOACYL-tRNA        | ) |                                       |
|                 | SYNTHETASE POLYPEPTIDES     | ) |                                       |
|                 | USEFUL FOR THE REGULATION   | ) |                                       |
|                 | OF ANGIOGENESIS             | ) |                                       |
|                 |                             | ) |                                       |
| Examiner:       | Gary B. Nickol, Ph.D.       | ) | Attorney Docket No. <u>TSRI 817.0</u> |

## DECLARATION UNDER 37 CFR §1.131

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

I, PAUL SCHIMMEL, declare:

1. That I am a co-inventor of the invention disclosed and claimed in the above-identified application;
2. That I am aware that claims 36 and 50 have been rejected as unpatentable;
3. That the rejections of these claims rely, in whole or in part, on the teachings of Schimmel *et al.*, U.S. Patent Publication No. US 2003/0017564 A1 ("Schimmel *et al.*"), which was published on January 23, 2003, and which claims the benefit of U.S. Provisional Application for Patent Serial No. 60/270,951, filed on February 23, 2001;
4. That I am co-inventor of the Schimmel *et al.*;
5. That prior to February 23, 2001, in the United States of America, Keisuke Wakasugi and I had conceived, prepared, and successfully tested an isolated polypeptide which has an amino acid residue sequence consisting essentially of residues 71-471 of SEQ ID NO: 10 as claimed in U.S. Patent Application Serial No. 09/813,718;
6. That Exhibit A, attached hereto, is a true copy of a summary chart of human TrpRS constructs and showing, *inter alia*, TrpRS-T1, the polypeptide of SEQ ID NO: 10 mentioned above, prepared prior to February 23, 2001; and

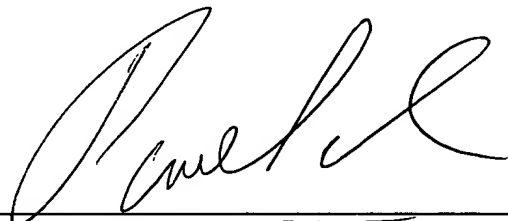
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7. That the summary chart reproduced in Exhibit A describes an isolated polypeptide which has an amino acid residue sequence consisting essentially of residues 71-471 of SEQ ID NO: 10 beginning at the green arrow (i.e., SNHGP... etc.).

I declare further that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issuing thereon.

La Jolla, California

Dated 06 09.04



Paul Schimmel

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Human TrpRS Constructs Summary

|                               | NH2 | COOH | Size | pI  | Charging | Angiogenic | Angiostatic |
|-------------------------------|-----|------|------|-----|----------|------------|-------------|
| Full-Length TrpRS             | 1   | 471  | 53Kd | 5.7 | +        | -          | -           |
| Mini TrpRS (splice variant)   | 48  | 471  | 48Kd | 5.8 | +        | -          | +           |
| TrpRS - T1 (cleavage product) | 71  | 471  | 46Kd | 5.9 | +        | -          | +           |
| TrpRS - T2 (cleavage product) | 94  | 471  | 43Kd | 6.8 | -        | -          | ?           |

\*Note: A mutant of each of the four proteins has been made in which DL T(205-207) is replaced with ELR

1 MPNSEPASLL ELFNSIATQG ELVRSLKAGN ASKDEIDSAV KMLVSLKMSY KAAAGEDYKA DCPFGNPAPT SNHGPDAT<sup>L</sup>EA

81 EEDFVDPWTV QTSSAKGIDY DKLI<sup>L</sup>VREGSS KIDKELINRI ERATGQRP<sup>L</sup>HH FLRRGIFFSH RDMNQVLDAY ENKKPFYLYT

161 GRGPSSEAMH VGH<sup>L</sup>LIPFIFT KWLQDVFNVP LVIQMTDDEK YLWKDLTL<sup>L</sup>DQ AYGD<sup>L</sup>AVENAK DIIACGFDIN KTFIFSDLDY

241 MGMSSGFYKN VVKIQKHVTF NQVKGIFGFT DSDCIGKISF PAIQ<sup>L</sup>AAPSFS NSFPQIFRDR TDIQCLIPCA IDQDPYFRMT

321 RDVAPRIGYP KPALLHSTFF PALQGAQTKM SASDPNSSIF LTDTAKQIKT KVNKHAFSGG RDTIEEHRQF GGNCDDVDVSE

401 MYLTFFLEDD DKLEQIRKDY TSGAMLTGEL KKALIEVLQP LIAEHQARRK EVTDEIVKEF MTPRKLSFDF Q

\*Note: All are recombinant constructs and have an N-terminal Met and a C-terminal KLA<sup>L</sup>AALEHHHHHH